



Applied Investment Management (AIM) Program

AIM Class of 2018 Equity Fund Reports Fall 2017

Date: Friday, October 26th | *Time:* 2:30 – 3:30 p.m. | *Location:* AIM Research Room 488

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These student presentations are an important element of the applied learning experience in the AIM program. The students conduct fundamental equity research and present their recommendations in written and oral format – with the goal of adding their stock to the AIM Equity Fund. Your comments and advice add considerably to their educational experience and is greatly appreciated. Each student will spend about 5-7 minutes presenting their formal recommendation, which is then followed by about 8-10 minutes of Q & A.

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Criteo SA (CRTO)

October 27, 2017

Jack Gorski

International Technology

Criteo SA (NASDAQ:CRTO), is a web advertising company that offers clients a range of products and solutions to better operate their online platforms. This includes: click per cost services, online banner displays, user optimization, data security, and search management tools. All of these products fall under CRTO's one business segment portfolio, Internet Display Advertising Services. Through this product portfolio, clients are able to access and utilize essential customer data, allowing for complete comprehensive analysis of their target segments, such that they can better execute marketing tactics and grow their businesses. Criteo offers their services to many online companies, most of which are e-commerce sites, located in the Americas, Europe and the Middle East, and Asia Pacific, representing revenues of approximately 37%, 40%, and 23% respectively. Criteo SA was founded on November 3, 2005 and is headquartered in Paris, France.

Price (\$):	41.88	Beta:	0.97	FY: Dec	FY 2015	FY 2016	FY 2017E	FY 2018E
Price Target (\$):	52.00	M-Term Rev. Gr Rate Est:	28.4%	Revenue (Mil)	1,323.20	1,799.10	2,295.30	2,865.10
52WK H-L (\$):	56.00 - 34.44	M-Term EPS Gr Rate Est:	24.7%	% Growth	33.7%	36.0%	27.6%	24.8%
Market Cap (mil):	2,733	Debt/Equity:	14.0%	Oper Inc	74.40	121.00	150.00	201.70
Insider Holdings	3.87%	Debt/EBITDA (ttm):	70.7%	% Growth	37.5%	62.6%	24.0%	34.5%
Avg. Daily Vol (mil):	0.85	WACC	9.7%	Op Margin	5.6%	6.7%	6.4%	6.8%
Yield (%):	0.00%	ROA (%):	6.4%	EPS*	\$0.91	\$1.25	\$1.52	\$2.24
ESG Rating	NA	ROE (%):	11.2%	P/E (Cal)	44.9	32.9	27.55	18.70
		ROIC (%):	11.6%	EVEBITDA	27.9	22.5	13.03	11.62

Recommendation

As global trends continue to shift to a more favorable e-commerce business platform, the demand for customer data is becoming exponentially important. Means of gathering data on a firm's customers is proving to be become more complicated as purchasing trends spread across many devices as well as both online and offline. Through their 16,000 client based partnership, Criteo has become a highly credible data gathering and advertisement service with its Criteo Engine. Through its partners Criteo now oversees ~\$550 billion of online transactions, representing over 20% of the total \$2.6 trillion spent in global online retail, which is expected to grow at a CAGR of 18% and reach \$4.3 trillion by 2019. From the transactions Criteo oversaw, they were able to generate nearly 7.4 billion advertisement clicks, which produced upwards of \$25 billion in click based purchases. The key metrics of Criteo's business: transaction oversight, number of clicks, post-click sales, and number of clients, have grown at 3 yr CAGRs of ~15%, ~50%, ~23%, and ~40% respectively. With access to more clientele, as well as better data, CRTO can grow their market share and transaction oversight reach quicker. With access to continuously updating information on over 700 million individual products and services CRTO is refine their prediction and recommendation algorithms, allowing them to better understand customer purchasing trends in order to provide the most effect ads to generate sales for their clients. Thus far, Criteo's algorithms have proven to be highly affective as their retargeting ads generate about 4x the number of clicks as traditional ads. Criteo also operates a predictive search engine that is slightly different from its competitors because of its pay-for-performance pricing model. Through the CSP service, CRTO receives a percentage of sale fee from their clients' Google Shopping Campaigns, and has revenue retention rates of 147%, 138%, and 120% for 2014, 2015 and 2016 respectively. The ability to maintain high levels of revenue retention is a strong indicator of CRTO's ability to maintain strong relationships with their clients and stable long-term revenues. CRTO's growing customer base is also contributing to more competitive header bidding initiatives that result in lower transaction acquisition costs. These costs have consistently represented ~60% of revenue and is the most material revenue expense for Criteo at ~92% of total COGS. A reduction in TACs will produce higher ex-TAC revenue which is has grown at a 5 yr CAGR of over 47%. For these reasons, it is recommended that Criteo SA be added to the AIM Equity Fund with a price target of \$52.00, representing an upside of 24.16%. Criteo SA does not pay a dividend.

Investment Thesis

- **Omnishoppers.** The e-commerce business is now faced with a new type of buyer, the “omnishopper” (someone who browses and purchases goods on several different devices). Criteo holds a competitive advantage of being a large player in developing data analysis on these new shoppers through their Criteo Engine. CRTO recently partnered Forbes Insights and surveyed more than 500 senior marketing executives who declared that customer data is core to their business strategy and were invested heavily in collecting and using this data. Criteo gathered customer data on over \$550 billion dollars’ worth of transactions in 2016. This transaction value has grown by a 3 yr CAGR of ~15%. As Criteo grows their customer data gathering pool, their services will attract more clients and more revenue.
- **Most Effective Retargeting.** Retargeting Ads (displaying similar items to those viewed in the past) are one Criteo’s most effective revenue sources. On average, CRTO’s retargeting ads generate about 4x the number of clicks as traditional ads. This has granted them favorability from advertisers who account for ~80% of CRTO’s clients. These clients also hold a retention rate above 90%, allowing Criteo to generate stable cash flow moving forward. Criteo can also expect to improve their top line as they attract new advertising clients with their successful machine-learning technology and mathematical algorithms that predict user behavior.
- **Muted ITP Effect.** A recent meeting with another retargeting specialist, and one of CRTO’s competitors, revealed that they had not experienced a material impact from Apple’s Intelligent Tracking Prevention (ITP). This comparable uses a similar tactic to avoid ITP with the use of HTTP Strict Transport Security (HSTS) to facilitate ad targeting. If Criteo can successfully avoid their Safari exposure, the stock’s ~17% decline since May would leave the stock currently undervalued.

Valuation

To reach an intrinsic value for CRTO, a P/E, EV/EBITDA, and EV/Sales multiple valuation were constructed along with a 5-year DCF model. A peer weighted average P/E multiple of 24.97x was used, resulting in a valuation of \$37.88. A peer weighted average EV/EBITDA multiple of 23.98x was used, producing a valuation of \$67.47. An EV/Sales multiple of 1.75x was used, leading to valuation of \$61.31. The discounted cash flow model used a WACC of 9.11% and a perpetuity growth rate of 2.0%, producing a valuation of \$47.10. Weighing my relative valuations to a collective 50% against my DCF at the remaining 50%, a final intrinsic value of \$52.00 was reached, representing a 24.16% upside.

Risks

- **Apple Plays Privacy.** In their most recent Worldwide Developers Conference, Apple announced that it would be implementing a new Safari web browsing ad blocker. This program will block all auto-playing video ads and attempt to reduce retargeted ads. Criteo has ~20% exposure to Safari, but claim they can avoid about half of Apple’s Intelligent Tracking Prevention, still leaving them with ~10% exposure. This new ad blocking software will prevent any point-click ad revenue and auto-video ad revenue for Criteo.
- **Ad Tech Competition.** Criteo is positioned in an immensely competitive environment with several forms of competition. In order to be successful, CRTO needs to produce better algorithms that cannot only beat that of their ad producing comps, but also beat ad blocking software. Criteo’s ability to become a market leader in web based advertisement will depend solely on their ability to do so. Failing to produce effective targeting algorithms will render Criteo’s services obsolete

Management

Eric Eichmann has served as Criteo SA’s CEO and President for close to two years. Prior to this role he acted as COO for Criteo and was the Senior VP of Ad operations and Technology at AOL. Benoit Fouilland serves as CRTO’s CFO, a position he has held since 2012. Before taking on this position, Benoit gained experience as the Senior VP and CFO for SAP’s EMEA region.



Source: FactSet

Peer Fundamentals

Name	Ticker	Revenues	ROE	ROA	Debt/Equity	Est 5 yr NI growth
Criteo SA	CRTO US	2,049	11.2%	6.4%	14.03	57.4%
Publicis Groupe SA	PUB FP	9,823	-8.6%	-2.2%	54.59	10.6%
BCA Marketplace PLC	BCA LN	2,030	3.6%	2.0%	35.80	-
DKSH Holding AG	DKSH SW	10,700	14.3%	5.1%	5.89	6.1%
j2 Global Inc	JCOM US	990	15.5%	6.8%	85.36	6.5%
Yelp Inc	YELP US	787	1.6%	1.5%	0.00	-
Peer Averages		5,886	6.2%	2.9%	45.41	7.7%

Source: Bloomberg

Peer Valuation

Name	Ticker	Market Cap (mil)	P/S	P/E	EV/EBITDA	EV/Sales
Criteo SA	CRTO US	2,735	2.6	36.2	20.2	2.3
Publicis Groupe SA	PUB FP	12,714	1.3	12.4	58.3	1.5
BCA Marketplace PLC	BCA LN	1,537	0.7	37.7	13.6	0.8
DKSH Holding AG	DKSH SW	5,548	0.5	26.4	15.9	0.5
j2 Global Inc	JCOM US	3,602	3.0	22.7	11.9	3.8
Yelp Inc	YELP US	3,601	3.8	36.2	61.0	3.3
Peer Averages		5,851	1.9	27.1	30.2	2.0

Source: Bloomberg

Green Plains Inc. (GPRE)

October 27, 2017

William Reckamp

Domestic Energy

Green Plains, Inc. (NYSE:GPRE) is the third largest fuel-grade ethanol producer in the United States. In addition, they produce corn oil, provide grain handling and storage, and offer commodity marketing and distribution services. The company operates through the following segments: Ethanol Production (69% of 2017 Q2 revenue), Agribusiness and Energy Services (18%), Food & Food Ingredients (12%), and Partnership (.18%). The Ethanol Production segment is responsible for operating their ethanol manufacturing plants. The Agribusiness and Energy Services segment includes grain procurement, which markets, sells and distributes ethanol, distiller grains (input for animal feed) and corn. The Food & Food Ingredients segment includes vinegar production and maintaining cattle feedlot. The Partnership segment provides fuel storage and transportation services by operating and acquiring fuel storage tanks. The company was founded in June 2004 and is headquartered in Omaha, NE.

Price (\$): 10/23/2017	\$18.75	Beta:	1.43	FY: Dec	2015	2016	2017E	2018E
Price Target (\$):	\$22.21	WACC	6.54%	Revenue	2,965,589,000	3,410,880,999	3,673,581,474	4,118,084,832
Upside	18.46%	M-Term Rev. Gr Rate Est:	11.73%	% Growth	-8.3%	15.0%	7.7%	12.1%
\$2WK H-L (\$):	\$29.85-\$16.35	M-Term EBIT Gr Rate Est:	26.02%	Ethanol Gallons Sold	947,557,000	1,147,630,000	1,229,973,489	1,352,970,838
Market Cap (mil):	801	Debt/Assets (ttm)	61%	% Growth	-2%	21%	7%	10%
Avg. Daily Vol (Thou):	344	Yield (%):	2.49%	Operating Margin	\$61,077,000	\$91,687,999	\$97,885,311	\$144,487,757
Expected EPS CAGR	265%	ROA (%):	0.48%	% Growth	-79%	50%	7%	48%
Insider Ownership	5.59%	ROE (%):	0.04%	EPS (GAAP)	\$0.19	\$0.28	\$0.16	\$0.86
ESG Rating	BBB	ROIC (%):	4.08%	EV/EBITDA	13.48	10.43	15.37	9.88

Recommendation

Ethanol production has increased 11% over the last four years and more than 97% of U.S. gasoline contains ethanol. U.S. emission reduction laws require the use of oxygenates, which primarily include ethanol, in cities with unhealthy levels of pollution. It is a valuable blend component which is used by refiners to extend their fuel supply. According to the U.S. Energy Information Administration (EIA), ethanol consisted of approximately 9.9% (mix known as E10) of the domestic fuel supply. In recent years, this blend has been increased to 15% (E15) which offers a higher octane fuel at a lower price than E10. In 2016, there were 431 E15 retailers and this number has jumped 113% to 919 retailers currently. Globally, 687 million gallons of U.S. ethanol was exported through June 2017, which is nearly 53% more than last year. GPRE has grown to become the largest ethanol producer in the small-cap category and has thus become one of the largest players in the distilled grain area. Management has shown their ability to create value added synergies by branching into different segments that rely on ethanol production. This approach allows for top-line growth with minimal cost increases. As a result, operating margins are expected to increase and therefore ultimately boost their pre-tax margins which historically have been 1.3% higher than their competitors. This acquisition strategy has also helped differentiate GPRE from a sole commodity producer and has allowed for a larger breadth of revenue which helps protect against the downside of commodity volatility. With a growing ethanol landscape, higher expected margins from acquisitions, and a diversified revenue support against commodity swings, it is recommended that Green Plains Inc. be added to the AIM Equity Fund with a price target of \$22.21 representing a 18.46% upside. The firm pay a 2.49% annual dividend.

Investment Thesis

- RFS II to the Rescue.** In the United States, the federal government mandates the use of renewable fuels under RFS II. In July 2017, the United States Environmental Protection Agency announced the required consumption of 33 billion gallons per year (bgy) of renewables by 2021. Currently the consumption must reach 24 bgy by December 2017 which represents a 37% increase by the end of 2021. GPRE is the third largest ethanol producer and has the supply to meet the increasing demand with production of 1.5 bgy.

- **Management's Appetite for Strategic Acquisitions.** Recently, GPRE became the world's largest manufacturer of food-grade industrial vinegar and fourth largest cattle-feeding operation in the U.S. One of the largest input prices for both vinegar and cattle feedlots relates to ethanol and distilled grains (byproduct of ethanol) respectively. This allows these segments to bypass the middlemen and add to top line growth with small incremental increases in COGS. According to the United States Department of Agriculture, beef production is expected to increase 11.6% from 2016-2025. With these two acquisitions, a projected 55% increase in segment revenue is expected for the end of 2018. Management has been exploring new segments that are still directly related to their core competency.
- **Income Stream Resiliency.** Many energy companies are at the mercy of large commodity changes that can cause detrimental effects on their business model. GPRE has operating segments in all areas of the ethanol chain. It operates in a downstream manner through their production facilities and upstream with grain handling and storage. Their Agribusiness and Energy Services segment have given GPRE the ability to store approximately 60.3 million bushels of grain allowing customers to store and sell at favorable prices. This upstream component helps differentiate them from a pure-play ethanol producer. In regard to geographic risk, GPRE has 17 production plants and operates in 6 different states which helps protect against centralized production risks. With the two recent acquisitions, GPRE has the extensiveness of vinegar and feedlot revenue.

Valuation

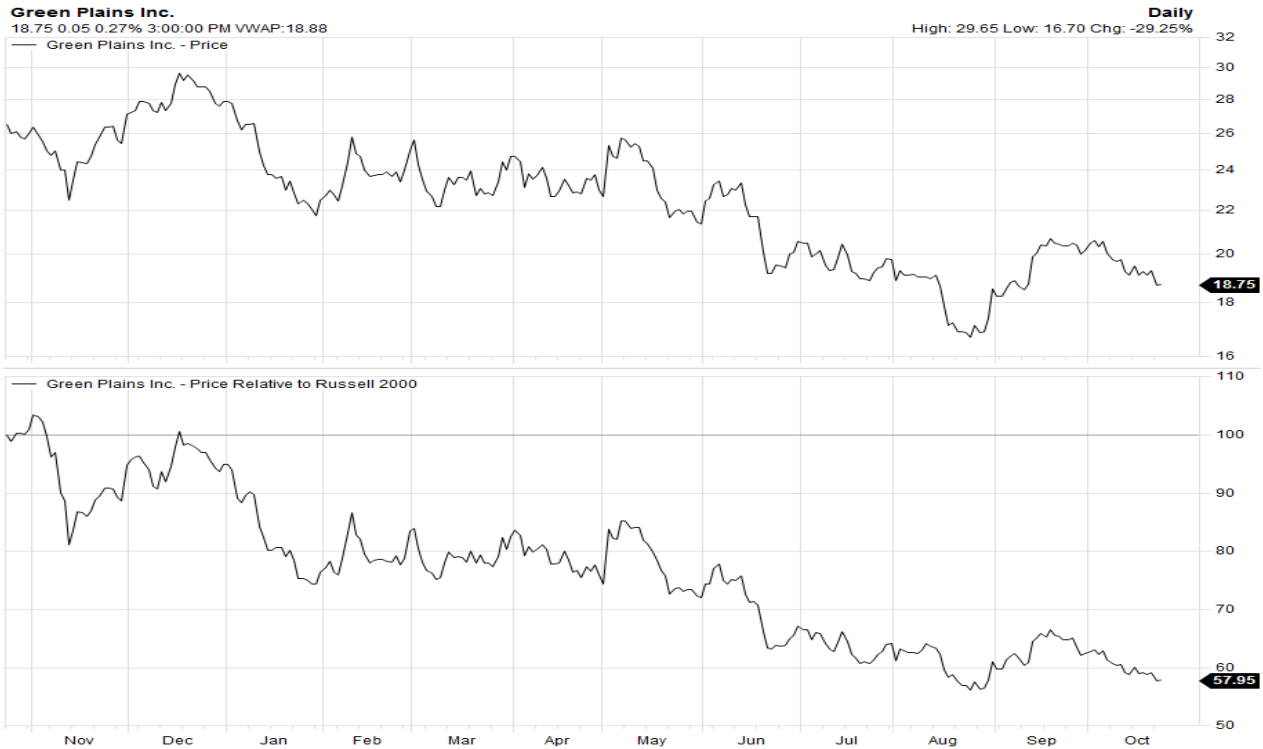
To reach an intrinsic value for GPRE, a five year DCF model and comparable multiple approach models were used. Using a terminal growth rate of 2.0% and a WACC of 6.61%, a DCF intrinsic value of \$25.82 was reached. A sensitivity analysis of the WACC (5.61-7.61%) and perpetuity rate (1.5-2.5%) produced a range of \$34.82-21.12. An EV/EBITDA and P/FCF multiple valuation was used with the following 2016 peer averages, 8.50x and 12.42x respectively. In order to calculate the EV/EBITDA intrinsic value, GPRE's 2018 E EBITDA of \$111 million was multiplied by the peer average (8.50x) to arrive at an intrinsic value of \$18.15. The P/FCF value was calculated by multiplying the 2018 estimated free cash flow per share of \$1.44 by the 13.40x peer average to reach a \$19.30 valuation. Weighting the DCF, EV/EBITDA, and P/FCF 50/30/20% respectively, a final value of \$22.21 was reached representing a 18.46% upside.

Risks

- **Chinese Tariff Increase.** According to the EIA, U.S. net ethanol exports were approximately 1.0 billion gallons. China is responsible for consuming 17% of U.S. ethanol exports. On January 1, 2017 China indicated an intention to raise its 5% tariff to 30% on these imports.
- **Commodity Fluctuations.** If there is a continued narrow spread between ethanol and corn prices as a result of increased corn prices or decreased ethanol prices this will have an adverse impact on GPRE's business model. Ethanol producers are generally unable to pass increased corn costs to customers because ethanol competes with other fuels.
- **Leverage Risk.** GPRE has \$1.08 billion in debt which translates to a 61% D/A ratio lying 47% above its competitors. With this amount of debt and a projected rising interest rate environment, this may cause significant financial stress. Additionally, GPRE has increased in size and operations significantly through M&A. A failure to create a successful synergy through acquisition will increase the likelihood of debt default risk.

Management

Todd Becker has been President, CEO, and Director for 6 years. Previously he was an Independent Director at The Hillshire Brands Company. He received his M.B.A. from the Kelley School of Business.



Peer Fundamentals

Name	Ticker	Revenue (mil)	ROA (%)	ROIC (%)	Debt/Assets (%)	5 yr Average Pretax Margin (%)
Green Plains Inc.	GPRE	3,411	0.48	4.08	61%	6.76
Pacific Ethanol Inc.	PEIX	1,625	0.21	0.26	28%	-0.76
Crop Energies AG	CE2 GR	802	6.90	17.93	12%	5.71
Renewable Energy Group Inc.	REGI	2,041	3.76	3.43	27%	-3.97
FutureFuel Corp.	FF	253	8.06	9.94	0%	15.92
Rex American Resources Corp.	REX	437	7.21	8.80	0%	10.32
Peer Averages		1,032	5.00	8.00	14%	5.44

Source: FactSet

Peer

Name	Ticker	Market Cap (mil)	EV/EBITDA	P/FCF	P/S
Green Plains Inc.	GPRE	801	11.31	10.52	0.31
Pacific Ethanol Inc.	PEIX	377.8	12.43	12.42	0.25
Crop Energies AG	CE2 GR	719.8	4.56	9.53	0.46
Renewable Energy Group Inc.	REGI	374	10.34	13.03	0.19
FutureFuel Corp.	FF	608.1	8.02	14.32	2.39
Rex American Resources Corp.	REX	355.2	5.67	16.62	1.21
Peer Weighted Averages		556	8.50	13.40	0.90

Source: FactSet

BASF SE (BASFY)

October 27, 2017

Andrew Crossman

International Materials

BASF SE (OTC: BASFY) is the world's largest diversified chemical company, it offers a range of chemicals and intermediate solutions. BASFY operates under five distinct product segments functional materials and solutions (34% of CY16 revenue), performance products (27%), chemical (24%), agricultural chemicals (10%), and oil and gas (5%). BASF derives revenue from around the globe, specifically from United States, Germany, and China (21%, 13%, 9% of CY16 revenue respectively). The company was founded in 1865 and is headquartered in Ludwigshafen am Rhein, Germany.

Price (\$):	\$26.73	Beta:	1.02	FY: Dec	2016A	2017E	2018E	2019E
Price Target (\$):	\$32.90	M-Term Rev. Gr Rate Est:	11.7%	Revenue (Mil)	57,550.00	66,586.00	76,447.90	80,040.42
52WK H-L (\$):	26.80 - 20.61	M-Term EPS Gr Rate Est:	32.6%	% Growth	-18.3%	15.7%	14.8%	4.7%
Market Cap (bil):	\$98.00	Debt/Equity:	53.1%	Oper Inc	6,450.00	7,931.65	9,134.73	9,568.45
Insider Holdings	15.3%	Debt/EBITDA (ttm):	1.30	% Growth	23.0%	23.0%	15.2%	4.7%
Avg. Daily Vol (thou):	135.43	WACC	7.76%	Op Margin	16.5%	34.0%	35.5%	37.8%
Yield (%):	2.3%	ROA (%):	5.29%	EPS*	\$5.20	\$7.29	\$8.94	\$9.26
ESG Rating	AA	ROE (%):	12.93%	P/E (Cal)	20.0	14.6	11.9	11.5
		ROIC (%):	7.22%	EV/EBITDA	6.5	8.2	7.4	7.1

Recommendation

BASF is a top three competitor in the chemical industry within its functional materials and solutions, performance products, and chemicals segments; improving margins in these segments is management's focus. Top line growth is the main focus within the agricultural chemicals segment, shown by management's recent decision to acquire part of Bayer's agrochemical segment. 1H17 results showed positive momentum in all segments, with main growth coming in the chemicals and functional materials segments (30% and 15% growth versus 1H16). This strong operational performance is expected to continue into 2H17 and is reflective of BASF's top of the industry product mix and cash flow generation. In addition to growing sales, management has announced a focus to reduce production costs by up to \$1B by the end of FY18, which will primarily be accomplished through the functional solutions segment. Chemical price depressions can strongly affect the performance of companies within the diversified chemical market, but BASF's wide breadth of products offers some protection from market trends. The innovative spirit of BASF is seen in their motto "We create chemistry." Heavy emphasis is placed on being a disruptor in the chemical market, beating competitors by creating market demand for recently developed products in brand new markets. Management has also emphasized creating chemistry for a sustainable future, consistently aiming to create solutions to relevant long-term problems. As the world population grows and issues like emissions and food shortages become more prevalent, BASF will continue to grow in demand for its products. A global presence, large production capacity, and focus on reduction of costs place BASF in a position to grow their business primarily through the functional solutions, performance materials, and agricultural chemicals departments. Due to BASF's potential topline growth, innovative chemical development, and favorable market position, it is recommended that BASFY be added to the AIM International Equity Fund with a price target of \$32.90, which represents a 23.08% upside. BASF pays a dividend of \$0.60, representing a yield of 2.3%.

Investment Thesis

- **Recovery of Chemical Prices** Chemical prices have been in a depressed state for the past couple of years. These low prices combined with lower than expected demand within the European market have resulted in lower than estimated sales (37% decline since FY14). Improved chemical prices in key segments have BASF poised to increase sales with a special focus on improving European sales numbers. 1H17 results show growth of 15% in Europe and overall relative to FY16 numbers. The firm is seeing improved results from an increase in capital expenditures to construct new plants, which is attributing to ability to meet increased demand. Strong prices and improved volumes will continue to fuel BASF's top line recovery.

- **Growth in Agrochemical** On October 12th, BASF announced a \$7B all cash purchase of a majority of Bayer's seed and herbicide business. Historically, BASF has struggled to break into the worldwide market (15% decrease in sales since 2014), but will now be able to compete at higher margins (FY16 EBITDA margin 21%) due to improved product mix as a result of the acquisition. Bayer's agrochemical segment produced sales of \$1.6B in 2016 (15% 3-year CAGR), operating at an EBITDA margin of 29%. BASF's agrochemical segment is a potential growth area, and management recognized the opportunity to purchase market share and assets at a reasonable valuation of 15.3x EBITDA compared to the two latest market acquisitions of agrochemical firms (16.5x and 21.1x EBITDA). Additional acquisitions could provide exit opportunities from less productive segments such as oil and gas.
- **Expertise in Innovation** BASF has a proven record of improving top line growth by staying on the cutting edge of chemical innovation. An industry leader in providing functional solutions, some examples of recent developments are high performance insulation (Slentite), a four-way catalytic converter (expected to extend cleaning capability of emissions), and lightweight plastic composites to be used to build cars with improved fuel efficiency (depending on the component, BASF has solutions which can reduce weight up to 40%). BASF has the expertise, research and development capabilities, and experience needed to lead in the chemical industry. Their focus on solving worldwide issues provides a growing market to be captured. In addition, BASF is a world leader in ownership of patents, filing for over 850 in CY16. Increasing intangible assets improves cash flows through revenue growth; \$10B (17.3%) in FY16 revenue was attributed through innovations brought to market since 2011.

Valuation

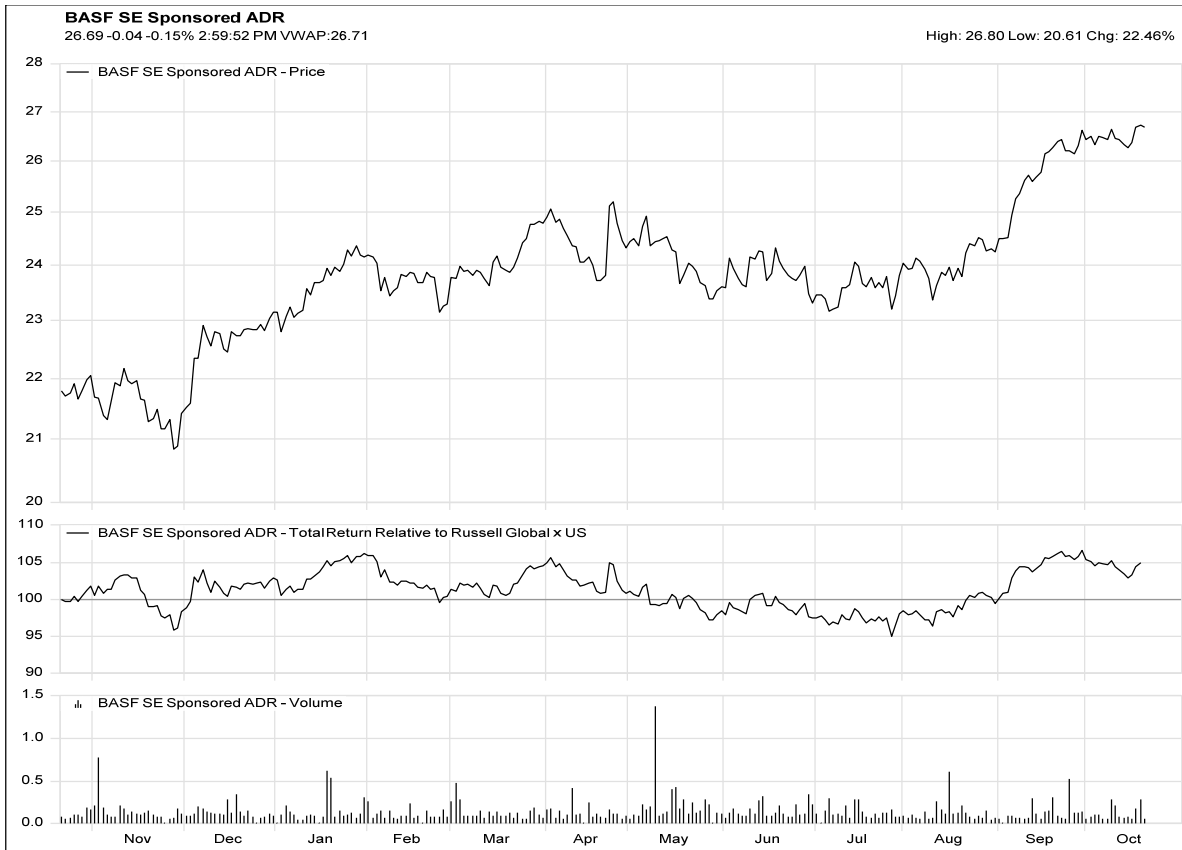
To reach an intrinsic value for BASFY, a 5-year DCF model was constructed. Using a terminal growth rate of 2.5% and a WACC of 7.76%, an intrinsic value of €108.28 was reached. A $\pm .25\%$ sensitivity analysis on the terminal growth rate and WACC ranged from €98.62 - €119.92. Additionally, a sum-of-the-parts relative multiple valuation was created, and used blended FY1/2 EBITDA and EV/EBITDA multiples from each of BASF's five segments in order to reach a valuation of €118.59. The DCF and SOTP were weighted 70/30 resulting in a price target of €111.37. Following a conversion from euro to USD with respect to shares outstanding for both the ADR and BAS-GR, a price target of \$32.90 was reached, representing an upside of 23.08%. The firm offers a 2.3% dividend yield.

Risks

- **Failed Merger.** BASF's acquisition of Bayer's seed and pesticide segment is heavily dependent on the merger of Bayer and Monsanto. Bayer is selling in advance of anticipated requests from regulators with concerns about anti-trust violations deriving from the potential consolidation of Bayer's seed segment with Monsanto, a large player in the seed and herbicide industry. Monsanto's stock price has climbed to \$122.15, relaying investor confidence the deal will close at \$128 as planned.
- **Commodity Pricing.** BASF's revenues and cost of production rely heavily on the prices of chemicals produce, oil, and raw chemicals used as inputs. Any decrease in the price of chemicals produced or a drop in the price of oil would significantly affect the firm's ability to maintain projected sales growth and margins.
- **Industry Competition.** The global chemical manufacturing industry faces significant competition in all markets that they operate in. Consolidation has only increased competition further as Dow Chemical merged with Dupont and ChemChina's acquired Syngenta within the last two years. Chemical manufacturers must be innovative to stay relevant.

Management

Kurt Bock has acted as the president and CEO of BASF since 2011. Dr. Hans-Ulrich Engel is on the Board of Executive Directors and has served as the CFO of BASF since 2015. BASF currently holds an ESG rating of AA, a reflection of their attempt to practice "sustainable chemistry."



Source: FactSet

<u>Name</u>	<u>Ticker</u>	<u>Revenues</u>	<u>ROE</u>	<u>ROA</u>	<u>Debt/Equity</u>	<u>Est 5 yr NI growth</u>
BASF SE	BASFY-US	57,550	15.9%	6.5%	55.2%	-3.6%
DowDupont RG	DWDP-US	48,169	10.6%	3.7%	75.7%	29.6%
SABIC	2010-SA	34,054	11.7%	5.8%	38.7%	-9.4%
Mitsubishi Chem	4188-JP	28,955	17.0%	4.1%	150.8%	34.1%
Monsanto	MON-US	13,305	34.9%	9.7%	150.9%	2.0%
Peer Averages		31,121	18.6%	5.8%	104.0%	14.1%

Source: Factset

<u>Name</u>	<u>Ticker</u>	<u>Market Cap (mil)</u>	<u>P/S</u>	<u>P/E</u>	<u>EV/EBITDA</u>	<u>P/B</u>
BASF SE	BASFY-US	82,709	1.33	17.28	8.67	2.61
DowDupont RG	DWDP-US	139,703	1.53	26.02	18.16	2.94
SABIC	2010-SA	66,377	1.95	14.56	6.95	1.81
Mitsubishi Chem	4188-JP	12,543	0.45	8.14	6.94	1.35
Monsanto	MON-US	45,228	3.43	24.04	13.75	7.78
Peer Averages		72,874	1.84	18.19	11.45	3.47

Source: Factset

Heron Therapeutics, Inc. (HRTX)

October 27, 2017

Tim Donovan

Domestic Health Care

Heron Therapeutics, Inc. (HRTX) is a biotechnology company focused on the development and commercialization of products for patients suffering from the side effects of cancer treatment, as well as post-surgery pain. They develop their products through the use of their proprietary Biochronomer polymer based drug delivery system. Their current portfolio is comprised of SUSTOL, along with several pipeline drugs including CINVANTI (HTX-019) and HTX-011. All of their products utilize their bio erodible, injectable, and implantable delivery system. Heron Therapeutics derives 100% of its revenues within the United States. It was founded in February of 1983 and is headquartered in Redwood City, CA.

Price (\$):	\$ 15.50	Beta:	1.60	FY: Mar	2016A	2017E	2018E	2019E
Price Target (\$):	\$ 23.91	M-Term Rev. Gr Rate Est:	200.0%	Revenue (000)	1,279.00	26,859.00	64,461.60	193,384.80
52WK H-L (\$):	12.21-20.85	M-Term EPS Gr Rate Est:	177.8%	% Growth	-	2000.0%	140.0%	200.0%
Market Cap (mil):	839	Debt/Equity (ntm):	0.36	Oper Inc	-170915.00	-209627.10	-163613.00	-46542.65
Insider Holdings	0.48%	Debt/Assets (ntm):	0.18	% Growth	29.99%	76.34%	22.65%	-21.95%
Avg. Daily Vol (mil):	0.6	WACC	14.59%	Op Margin	-13363%	-780%	-254%	-24%
Yield (%):	0.00%	Sales/Assets (FY1):	45.27%	EPS	-4.57	-3.88	-2.73	-0.78
ESG Rating	-	Sales/Equity (FY1):	93.29%	P/E	-3.39x	-4.39x	-6.78x	-25.72x
		ROIC (%):	-	EV/EBITDA	-4.906	-4.387	-6.784	-25.783

Recommendation

Heron Therapeutics aims to be a leader in the development and commercialization of drugs designed to thwart various side effects of cancer treatment. Today approximately 15MM Americans live with cancer, of which well over 500,000 will receive chemotherapy for annually. Although chemotherapy has been known to reduce tumor size, severe nausea and vomiting have been associated with the disease. HRTX has designed two products, SUSTOL (FDA approved) and CINVANTI (NDA process) for the treatment of acute and long-term chemotherapy induced nausea and vomiting (CINV). Upon the approval of CINVANTI, Heron will be the first company to offer a full-service line of short and long term CINV care. Beyond the variety that they offer, they will be the first approved drug free of polysorbate-80, an allergic reaction inducing compound found in current treatments. With cancer related costs amounting an astounding \$87.8 billion annually, the estimated combined market for these two drugs in approaching \$1 billion annually with \$400MM to be attributed to CINVANTI upon approval. Beyond their CINV preventative drugs HRTX is producing HTX-011, a phase 3 drug combination of bupivacaine and meloxicam designed to reduce post-op pain without the need for opioids. The product will be delivered through their proprietary Biochronomer system and boasts an addressable market of up to \$2 billion. With a unique product duo and a strong pipeline HRTX has an opportunity to shape the landscape of cancer care. Because of their unique treatment strategy and their potential to capture a large share of the cancer care market, it is recommended that Heron Therapeutics be added to the AIM Small Cap Portfolio at a target price of \$23.91 representing a 54.24% upside.

Investment Thesis

- All of the positives without the negatives.** The current FDA approved NK1 receptor antagonist, fosaprepitant, contains what is known as polysorbate-80. This compound has been linked to severe allergic reactions, including anaphylaxis, and has even been responsible for several deaths. CINVANTI would be the first FDA approved NK1 receptor antagonist that does not contain the polysorbate-80 compound, resulting in an effective CINV inhibitor while avoiding the dangerous side effects of current treatment options. Approval and commercialization is set for Q1 2018.

- **No one trick pony.** CINV is a side effect of Chemotherapy that can be complex to prevent. With difficulties in the acute and delayed term most patients receive 5-HT3 and NK1 receptor antagonists for short term and long-term prevention respectively. If CHIVANTI is approved Heron Therapeutics will be the first company to offer patients a combined treatment of 5-HT3 and NK1 treatments, allowing an easier delivery method, decreased sales costs, with decreased overall side effects.
- **Not their first rodeo.** In development-stage biotechnology companies a management team can dictate success. Heron's CEO, President, and VP of Drug development collectively bring over 75 years of experience to the company, including several years of executive experience at Pfizer and Bristol Myers Squibb. This experience will greatly help Heron through the FDA approval process as well as the transition from a drug development to a drug commercialization company.

Valuation

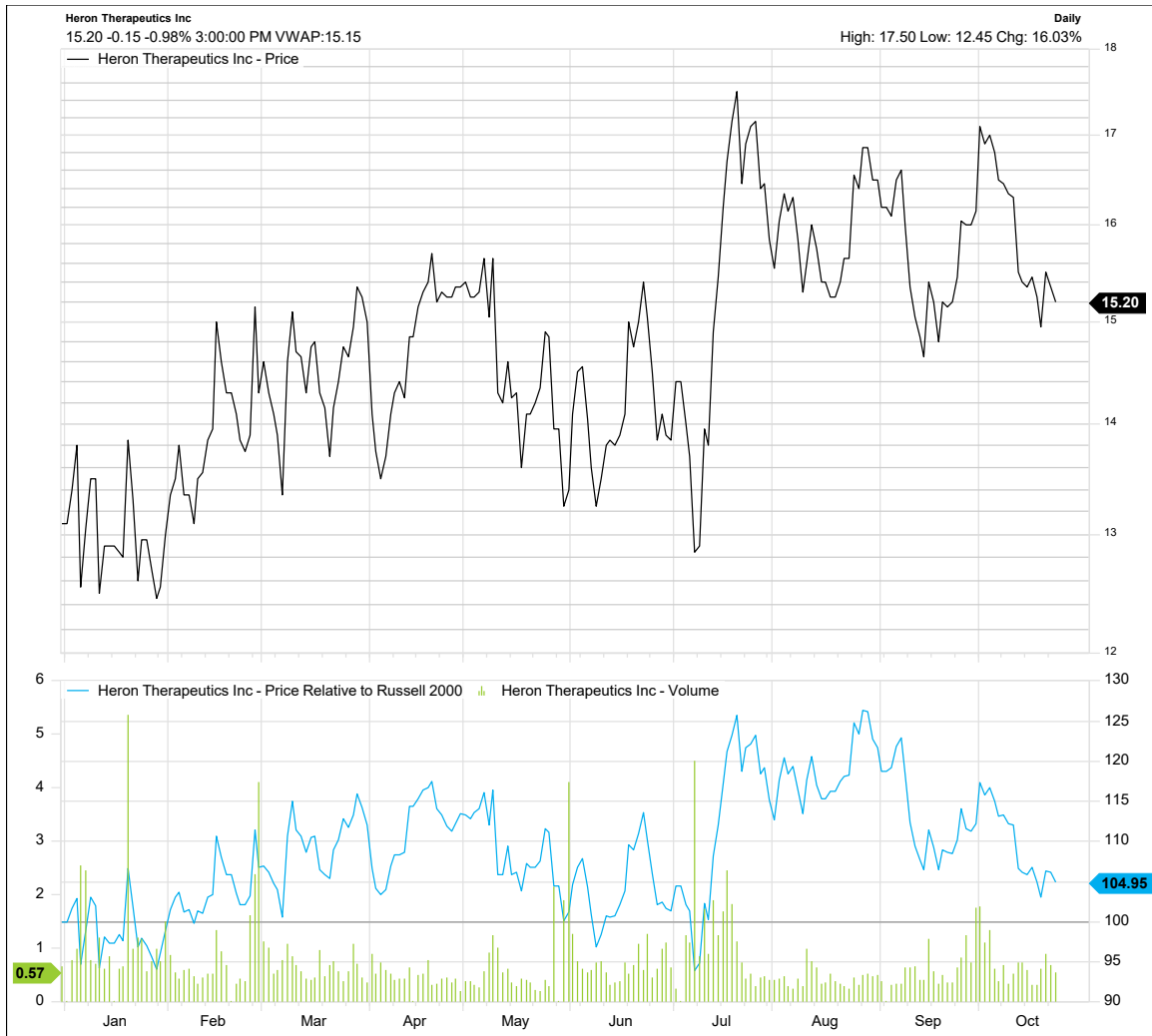
To establish an intrinsic value for Heron Therapeutics a 5-year DCF model and a relative valuation model were constructed. Using a WACC of 14.59% and a terminal growth rate of 2.5% an intrinsic value of \$23.29 was reached. In order to adjust for a secondary equity offering the intrinsic value was calculated using 60MM shares outstanding, which takes into account a 5.9MM share offering. With the secondary offering taken into account the intrinsic value of \$23.91 was reached, representing a 54.24% upside.

Risks

- **Don't catch the FDA on a bad day.** One of the most difficult hurdles in the biotechnology industry is the FDA approval process. Despite being in the final stages of the approval process, if CHIVANTI's NDA is rejected or demands further revision, Heron's revenues will be greatly affected going forward.
- **The need for funds.** Heron Therapeutics has a cash burn of roughly \$32 million per quarter. With cash and equivalents for the most recent quarter totaling \$109.3 million, they have sufficient cash to carry them through the first half of 2018. Despite this, the need for cash moving forward would likely come from an issuance of equity, and as a result dilute the stock price for investors.
- **The big transition.** Currently Heron acts as a pharmaceuticals development company. Moving forward with SUSTOL and potentially CINVANTI management will have to pivot the business to insure the success of manufacturing and distribution of their products. While they hire a third-party manufacturer, sales for their products are done in-house. With a 50-person team they are positioned well to introduce their products to the market, however as time goes on the sales force will need to increase in order to sustain increased sales levels. Management's ability to effectively hire and train new sales staff will have a great impact on future costs and top line growth.

Management

Heron Therapeutics is led by Chief Executive Officer, Dr. Barry Quart. As co-founder of Ardea Biosciences as well as SVP of Global R&D for Pfizer, Dr. Quart boasts over 25 years of various industry experience. He is joined by Robert Rosen, President/Director, who also has over 25 years of industry experience through various positions including Global Head of Oncology for Bayer Healthcare. Ms. Kimberly Manhard has been with Heron for 3 years as the Executive Vice President of Drug development. Having previously served as in multiple executive roles at Ardea Biosciences, Exelixis, and Bristol Myers Squibb, Ms. Manhard also brings over 25 years of industry experience to the executive team.



Peer Fundamentals

Name	Ticker	Revenue	R&D Expense	EBITDA	LT Debt/Equity	NOI
Heron Therapeutics, Inc.	HRTX	13.4	113.6	-175	36.2%	-189.6
Amphastar Pharmaceuticals, Inc.	AMPH	245.6	39.8	16.7	12.0%	4
Pacira Pharmaceuticals, Inc.	PCRX	281.5	61.3	-28.2	103.2%	-65.7
Eagle Pharmaceuticals, Inc.	EGRX	245.9	34.1	83.8	0.0%	96.7
Flexion Therapeutics, Inc.	FLXN	0.0	43.0	-87.9	74.3%	-93.7
Synergy Pharmaceuticals, Inc.	SGYP	2.4	83.2	-217.0	39.1%	-238.6
Peer Averages		155.1	52.3	-46.52	45.7%	-50.9

Peer Valuation

Name	Ticker	Market Cap (mil)	Price/Sales FY2	Sales/Share FY2	EV/Sales FY2	EPS (NTM)
Heron Therapeutics, Inc.	HRTX	832.3	11.41x	1.36x	55.98x	-2.56
Amphastar Pharmaceuticals, Inc.	AMPH	854.6	2.64x	7.00x	3.26x	0.59
Pacira Pharmaceuticals, Inc.	PCRX	1,351.5	3.81x	8.78	4.40x	0.74
Eagle Pharmaceuticals, Inc.	EGRX	791.8	3.68x	14.11x	3.00x	4.25
Flexion Therapeutics, Inc.	FLXN	849.7	23.17x	1.00x	-	-3.54
Synergy Pharmaceuticals, Inc.	SGYP	632.1	7.69x	0.37x	235.12x	-0.81
Peer Averages		895.9	4.46x	5.62x	61.45x	0.246